

# Answer to primary stakeholder questions

Following strategic discussions with HOD Tony Sharma, I have conducted an in-depth analysis addressing both primary and secondary business objectives. This report consolidates insights derived from extensive data exploration and evaluation using MySQL, leveraging its capabilities for efficient data processing and analysis. The focus of this analysis was to uncover key trends, evaluate critical performance metrics, and deliver actionable insights tailored to the needs of stakeholders. The findings aim to provide clarity on operational performance, identify areas for improvement, and support data-driven decision-making. The dashboard with important metrics would be made using POWER BI.

## Identified the top 3 cities in term of total trips

```
SELECT
    c.city_name,
    COUNT(t.trip_id) AS total_trips
FROM
    fact_trips t
JOIN
    dim_city c ON t.city_id = c.city_id
GROUP BY
    c.city_name
ORDER BY
    total_trips DESC
LIMIT 3;
```

	city_name	total_trips
▶	Jaipur	2085
	Lucknow	1694
	Surat	1504

## Bottom 3 cities in term of total trips

```
SELECT
    c.city_name,
    COUNT(t.trip_id) AS total_trips
FROM
    fact_trips t
JOIN
    dim_city c ON t.city_id = c.city_id
GROUP BY
    c.city_name
ORDER BY
    total_trips ASC
LIMIT 3;
```

	city_name	total_trips
►	Mysore	446
	Coimbatore	586
	Visakhapatnam	736

## Average fare per trip and distance per trip

SELECT

```
c.city_name,
AVG(t.fare_amount) AS avg_fare_per_trip,
AVG(t.`distance_travelled(km)`)AS avg_distance
```

FROM

```
fact_trips t
```

JOIN

```
dim_city c ON t.city_id = c.city_id
```

GROUP BY

```
c.city_name
```

ORDER BY

```
c.city_name;
```

city_name	avg_fare_per_trip	avg_distance
Chandigarh	281.6237	23.4466
Coimbatore	168.2150	15.0956
Indore	179.3398	16.5568
Jaipur	481.4863	30.0609
Kochi	338.5571	24.2292
Lucknow	147.3176	12.5596
Mysore	248.3184	16.4753
Surat	116.6563	10.8963
Vadodara	116.8117	11.3224
Visakhapatnam	283.3560	22.6386

## Observation

Jaipur has the highest average fare per trip at INR 481 and Surat has the lowest average fare per trip at INR 117. Jaipur is known as a tourism city and Surat is known as a business hub with textile and diamond industry so we can classify the former as a tourism focussed city and second one as a business focussed city.

## Inference

As we can infer from the above in the case of Jaipur which is a known tourist spot, it likely involves longer trips to historical landmarks and premium services, leading to higher fares.

Conversely, Surat's business-focused economy sees a predominance of short, utility-based commutes, resulting in lower average fares. This suggests Jaipur's market thrives on fewer, high-value trips (e.g., monuments, hotels, restaurants) while Surat's success lies in frequent, lower-cost rides (e.g., commuting to offices, industrial areas, or client meetings).

## Takeaway

Jaipur has potential for driving revenue and Surat has potential for loyal customers. The disparity in fares highlights different revenue potentials. Jaipur's higher fares might indicate greater profitability per trip, but potentially lower trip volume due to longer trip durations. Surat's lower fares suggest higher trip frequency and volume, making it a market where scale (higher

passenger count) drives revenue. Goodcabs could consider tailoring its offerings in Jaipur to attract more tourist groups, such as packages for sightseeing or discounts for long-distance trips. While in Surat, optimizing operations for short trips, like shared rides or subscription-based models for daily commuters, could prove to be a great strategy in retaining customers and generating a stable source of revenue.

## Rating analysis by customer type and city

SELECT

c.city\_name,

t.passenger\_type,

AVG(t.passenger\_rating) AS avg\_passenger\_rating

FROM

fact\_trips t

JOIN

dim\_city c ON t.city\_id = c.city\_id

GROUP BY

c.city\_name,

t.passenger\_type

ORDER BY

c.city\_name,

t.passenger\_type;

	city_name	passenger_type	avg_passenger_rating
►	Chandigarh	new	8.4664
	Chandigarh	repeated	7.5122
	Coimbatore	new	8.4979
	Coimbatore	repeated	7.5042
	Indore	new	8.5424
	Indore	repeated	7.5044
	Jaipur	new	8.9534
	Jaipur	repeated	7.9608
	Kochi	new	8.9474
	Kochi	repeated	7.9951
	Lucknow	new	7.9726
	Lucknow	repeated	5.9554
	Mysore	new	9.0603
	Mysore	repeated	8.0382
	Surat	new	7.9206
	Surat	repeated	6.0084
	Vadodara	new	7.9898
	Vadodara	repeated	6.0337
	Visakhapat...	new	9.0151
	Visakhapat...	repeated	7.9356

## Observation

Chandigarh stands out with the highest average passenger rating among all cities, which means it's the city with strongest customer satisfaction. On the other hand, Vishakhapatnam has the lowest average rating, suggesting potential issues with service quality or passenger experience. We have seen new passengers provide higher average ratings compared to repeat passengers across cities.

## Inference

The high ratings in Chandigarh suggest that the city delivers consistent and exceptional service, meeting or even exceeding customer expectations. In contrast, Vishakhapatnam's low ratings could point to operational inefficiencies, service gaps, or unmet customer needs that require immediate attention. The difference in ratings between new and repeat passengers reveals an interesting dynamic: new passengers, experiencing the service for the first time, may rate it higher due to novelty or lower initial expectations. Meanwhile, repeat passengers, having more exposure to the service, likely have elevated expectations and are more critical when services don't match their past experiences.

## Takeaway

To improve overall customer satisfaction, Goodcabs should focus on addressing the specific challenges faced in Vishakhapatnam, such as driver training, better vehicle upkeep, or enhanced customer support. Moreover, strategies should be developed to enhance the experience of repeat passengers, as their loyalty is critical for sustained business growth. This could include personalized offers, loyalty programs, or ensuring consistent service quality to maintain their satisfaction over time. Strengthening performance in underperforming cities while sustaining excellence in top-performing cities like Chandigarh will be key to improving overall passenger ratings.

## Weekday-weekend preference for each city

```
SELECT
    c.city_name,
    d.day_type,
    COUNT(t.trip_id) AS total_trips
FROM
    fact_trips t
JOIN
    dim_city c ON t.city_id = c.city_id
JOIN
    dim_date d ON t.date = d.date
WHERE
    t.date >= DATE_SUB(CURDATE(), INTERVAL 6 MONTH) -- Limit to the last 6 months
GROUP BY
    c.city_name,
    d.day_type
ORDER BY
    c.city_name,
    d.day_type;
```

	city_name	day_type	total_trips
►	Chandigarh	Weekday	142
	Chandigarh	Weekend	120
	Coimbatore	Weekday	73
	Coimbatore	Weekend	46
	Indore	Weekday	133
	Indore	Weekend	122
	Jaipur	Weekday	196
	Jaipur	Weekend	243
	Kochi	Weekday	136
	Kochi	Weekend	176
	Lucknow	Weekday	311
	Lucknow	Weekend	81
	Mysore	Weekday	41
	Mysore	Weekend	70
	Surat	Weekday	238
	Surat	Weekend	110
	Vadodara	Weekday	139
	Vadodara	Weekend	61
	Visakhapat...	Weekday	101
	Visakhapat...	Weekend	96

### Observation

The cities where weekend trips outnumber weekday trips are Jaipur, Kochi, and Mysore. This trend highlights a notable surge in travel demand during weekends in these locations compared to weekdays.

### Inference

This pattern suggests that Jaipur, Kochi, and Mysore are predominantly tourism-focused cities. The increased weekend travel likely indicates that these cities attract visitors for leisure, vacations, or family visits. Jaipur, known for its historical monuments, and Kochi and Mysore, celebrated for their cultural and natural attractions, appear to have a strong pull for weekend travelers. The decrease in weekday trips underscores limited business or local commuter demand compared to more tourism-driven activity.

### Takeaway

Goodcabs could capitalize on this weekend surge by tailoring marketing campaigns or promotional offers specifically for tourists visiting these cities. Packages that include weekend discounts, city tours, or partnerships with local attractions could enhance customer engagement and increase trip volumes. Understanding these trends also allows Goodcabs to allocate resources such as driver availability and fleet size more effectively to cater to peak weekend demand in these cities.

### Analysis of repeat customers by each city

WITH total\_repeat\_passengers\_per\_city AS (

SELECT

r.city\_id,

SUM(r.repeat\_passenger\_count) AS total\_repeat\_passengers

FROM

dim\_repeat\_trip\_distribution r

GROUP BY

r.city\_id

)

SELECT

c.city\_name,

CASE

WHEN r.trip\_count = 2 THEN '2 Trips'

WHEN r.trip\_count = 3 THEN '3 Trips'

WHEN r.trip\_count = 4 THEN '4 Trips'

ELSE 'More than 4 Trips'

END AS trip\_category,

(SUM(r.repeat\_passenger\_count) \* 100.0 / t.total\_repeat\_passengers) AS percentage\_of\_repeat\_passengers

FROM

dim\_repeat\_trip\_distribution r

JOIN

dim\_city c ON r.city\_id = c.city\_id

JOIN

total\_repeat\_passengers\_per\_city t ON r.city\_id = t.city\_id

GROUP BY

c.city\_name,

trip\_category,

t.total\_repeat\_passengers

ORDER BY

c.city\_name,

trip\_category;

### First Category

	city_name	trip_category	percentage_of_repeat_passengers
►	Vadodara	More than 4 Trips	59.43396
	Surat	More than 4 Trips	59.42348
	Lucknow	More than 4 Trips	59.37272
	Coimbatore	More than 4 Trips	58.40847
	Visakhapat...	2 Trips	51.25294
	Jaipur	2 Trips	50.14460
	Mysore	2 Trips	48.74746
	Kochi	2 Trips	47.66588
	Indore	2 Trips	34.34035
	Chandigarh	More than 4 Trips	32.70217
	Chandigarh	2 Trips	32.30769
	Indore	More than 4 Trips	29.57317
	Visakhapat...	3 Trips	24.96085
	Mysore	3 Trips	24.44144
	Kochi	3 Trips	24.35090
	Indore	3 Trips	22.68570
	Jaipur	3 Trips	20.72919
	Chandigarh	3 Trips	19.25049
	Jaipur	More than 4 Trips	17.01095
	Surat	4 Trips	16.55476
	Vadodara	4 Trips	16.52094
	Lucknow	4 Trips	16.20298
	Kochi	More than 4 Trips	16.16837
	Chandigarh	4 Trips	15.73964
	Coimbatore	4 Trips	15.56252
	Coimbatore	3 Trips	14.81772
	Lucknow	3 Trips	14.76503
	Surat	3 Trips	14.26256

## Second Category

city_name	trip_category	percentage_of_repeat_passengers
Chandigarh	2 Trips	32.30769
Coimbatore	2 Trips	11.21129
Indore	2 Trips	34.34035
Jaipur	2 Trips	50.14460
Kochi	2 Trips	47.66588
Lucknow	2 Trips	9.65927
Mysore	2 Trips	48.74746
Surat	2 Trips	9.75920
Vadodara	2 Trips	9.87115
Visakhapatnam	2 Trips	51.25294
Chandigarh	3 Trips	19.25049
Coimbatore	3 Trips	14.81772
Indore	3 Trips	22.68570
Jaipur	3 Trips	20.72919
Kochi	3 Trips	24.35090
Lucknow	3 Trips	14.76503
Mysore	3 Trips	24.44144
Surat	3 Trips	14.26256
Vadodara	3 Trips	14.17395
Visakhapatnam	3 Trips	24.96085
Chandigarh	4 Trips	15.73964
Coimbatore	4 Trips	15.56252
Indore	4 Trips	13.40078
Jaipur	4 Trips	12.11527
Kochi	4 Trips	11.81484
Lucknow	4 Trips	16.20298
Mysore	4 Trips	12.72850
Surat	4 Trips	16.55476

## Observation

From the data analysis, we observe that cities like Vadodara, Surat, Lucknow, and Coimbatore have about 60% of repeat passengers taking more than four trips. This indicates a high level of loyalty among customers in these cities. On the other hand, cities like Chandigarh and Indore have a significant percentage of repeat passengers taking only up to two trips, reflecting lower loyalty. Cities like Kochi, Mysore, and Vishakhapatnam show an even starker trend, where nearly half of the repeat passengers take just two trips, suggesting these cities lack a loyal customer base. Additionally, Jaipur, a well-known tourist destination, has most customers taking only single trips, which are likely airport or station transfers.

## Inference

The first group of cities—Vadodara, Surat, Lucknow, and Coimbatore—are business-focused. This can be inferred from the higher frequency of trips by repeat passengers, as frequent travel often aligns with business needs such as commuting to offices, attending meetings, or managing other work-related activities. In contrast, cities like Jaipur, Kochi, Mysore, Vishakhapatnam, Chandigarh, and Indore appear to be tourism-focused. Tourists usually use cab services for short-term purposes, such as sightseeing or traveling to and from transit hubs, which explains the lower repeat trip numbers. Tourism-focused cities also tend to attract more new passengers than repeat ones due to the constant influx of visitors.

## Takeaway

Based on the data and context, we can classify Vadodara, Surat, Lucknow, and Coimbatore as business-focused cities, while Jaipur, Kochi, Mysore, Vishakhapatnam, Chandigarh, and Indore are tourism-focused. Business cities demonstrate a higher level of customer loyalty, reflected in frequent trips by repeat passengers, whereas tourism cities show lower loyalty with more single or infrequent trips. For Goodcabs, this insight highlights the need to adopt different strategies for these city types. Business cities could benefit from loyalty programs and corporate partnerships, while tourism cities might see value in promotional packages for first-time users or airport transfer discounts. This segmentation allows targeted efforts to optimize operations and enhance customer satisfaction in each type of city.

## Target based analysis

### Aspect of new passengers

SELECT

t.month\_name,

c.city\_name,

t.target\_new\_passengers,

a.new\_passengers,

CASE

WHEN a.new\_passengers = t.target\_new\_passengers THEN 'Met'

```

    WHEN a.new_passengers > t.target_new_passengers THEN 'Exceeded'

    ELSE 'Not Met'

END AS performance_status,

CASE

    WHEN a.new_passengers >= t.target_new_passengers THEN (a.new_passengers - t.target_new_passengers) /
t.target_new_passengers * 100

    ELSE (t.target_new_passengers - a.new_passengers) / t.target_new_passengers * 100

END AS percentage_difference

FROM

    monthly_target_new_passengers t

JOIN

    fact_passenger_summary a ON t.month_name = a.month_name AND t.city_id = a.city_id

JOIN

    dim_city c ON t.city_id = c.city_id;

```

	month_name	city_name	target_new_passengers	new_passengers	performance_status	percentage_difference
▶	2024-01-01	Chandigarh	4000	3920	Not Met	2.0000
	2024-02-01	Chandigarh	4000	4104	Exceeded	2.6000
	2024-03-01	Chandigarh	4000	3228	Not Met	19.3000
	2024-04-01	Chandigarh	3000	2496	Not Met	16.8000
	2024-05-01	Chandigarh	3000	2730	Not Met	9.0000
	2024-06-01	Chandigarh	3000	2430	Not Met	19.0000
	2024-01-01	Coimbatore	1500	1822	Exceeded	21.4667
	2024-02-01	Coimbatore	1500	1647	Exceeded	9.8000
	2024-03-01	Coimbatore	1500	1538	Exceeded	2.5333
	2024-04-01	Coimbatore	1000	1242	Exceeded	24.2000
	2024-05-01	Coimbatore	1000	1039	Exceeded	3.9000
	2024-06-01	Coimbatore	1000	1226	Exceeded	22.6000
	2024-01-01	Indore	2700	2843	Exceeded	5.2963
	2024-02-01	Indore	2700	2878	Exceeded	6.5926
	2024-03-01	Indore	2700	2742	Exceeded	1.5556
	2024-04-01	Indore	2000	2351	Exceeded	17.5500
	2024-05-01	Indore	2000	2028	Exceeded	1.4000
	2024-06-01	Indore	2000	2021	Exceeded	1.0500
	2024-01-01	Jaipur	12000	10423	Not Met	13.1417
	2024-02-01	Jaipur	12000	10789	Not Met	10.0917
	2024-03-01	Jaipur	12000	7417	Not Met	38.1917
	2024-04-01	Jaipur	6000	6120	Exceeded	2.0000
	2024-05-01	Jaipur	6000	5332	Not Met	11.1333
	2024-06-01	Jaipur	6000	5775	Not Met	3.7500
	2024-01-01	Kochi	5000	4865	Not Met	2.7000
	2024-02-01	Kochi	5000	4367	Not Met	12.6600
	2024-03-01	Kochi	5000	4865	Not Met	2.7000
	2024-04-01	Kochi	4000	4939	Exceeded	23.4750

## Observation

Business-focused cities consistently outperform tourism-focused cities in meeting and exceeding their targets for acquiring new customers. Coimbatore stands out as the best-performing business city, consistently exceeding its targets by an average margin of 13 to 14 percent. Surat has also shown strong performance, surpassing its targets in two out of three months. Meanwhile, Vadodara and Lucknow have exceeded their targets every alternate month, further reinforcing their strength in attracting new customers.



In tourism-focused cities, Indore emerges as the top performer, consistently surpassing its targets every month. Conversely, cities like Jaipur, Vishakhapatnam, and Chandigarh struggle to meet their new customer targets and often underperform. Despite this, Lucknow offers some promise with a trend of exceeding its targets every other month.

### Inference

Coimbatore is the strongest business-focused city for gaining new passengers, indicating a well-established and growing demand for cab services among professionals, regular commuters, and business travelers. Other business-focused cities like Surat, Vadodara, and Lucknow also demonstrate strong potential, though slightly less consistent than Coimbatore.

For tourism-focused cities, Indore's consistent success makes it the ideal city for attracting new riders in this category. However, the weak performance of Jaipur, Vishakhapatnam, and Chandigarh reflects challenges in engaging tourists or new visitors effectively. Lucknow's occasional success indicates that it has the potential to improve with targeted strategies.

### Takeaway

Coimbatore is the best city for acquiring new passengers among business-focused locations, and its consistent outperformance offers a blueprint for success in similar markets. Indore leads among tourism-focused cities, showcasing the potential for growth in markets with a steady influx of visitors. To capitalize on these insights, Goodcabs should prioritize strategies that replicate Coimbatore's success in business-focused cities and Indore's strategies in tourism-focused locations. For underperforming cities like Jaipur, Vishakhapatnam, and Chandigarh, tailored marketing campaigns, promotional offers, and partnerships with local businesses or tourism operators could help improve new passenger acquisition rates.

### Aspect of total trips

SELECT

t.month\_name,

c.city\_name,

t.total\_target\_trips,

a.total\_passengers,

CASE

WHEN a.total\_passengers = t.total\_target\_trips THEN 'Met'

WHEN a.total\_passengers > t.total\_target\_trips THEN 'Exceeded'

ELSE 'Not Met'

END AS performance\_status,

CASE

WHEN a.total\_passengers >= t.total\_target\_trips THEN (a.total\_passengers - t.total\_target\_trips) / t.total\_target\_trips \* 100

ELSE (t.total\_target\_trips - a.total\_passengers) / t.total\_target\_trips \* 100

END AS percentage\_difference

FROM

monthly\_target\_trips t

JOIN

fact\_passenger\_summary a ON t.month\_name = a.month\_name AND t.city\_id = a.city\_id

JOIN

dim\_city c ON t.city\_id = c.city\_id;

	month_name	city_name	total_target_trips	total_passengers	performance_status	percentage_difference
▶	2024-01-01	Mysore	2000	2129	Exceeded	6.4500
	2024-02-01	Mysore	2000	2290	Exceeded	14.5000
	2024-03-01	Mysore	2000	2194	Exceeded	9.7000
	2024-01-01	Visakhapatnam	4500	3163	Not Met	29.7111
	2024-01-01	Chandigarh	7000	4640	Not Met	33.7143
	2024-01-01	Surat	9000	3616	Not Met	59.8222
	2024-01-01	Vadodara	6000	2633	Not Met	56.1167
	2024-01-01	Kochi	7500	5660	Not Met	24.5333
	2024-01-01	Indore	7000	3876	Not Met	44.6286
	2024-01-01	Jaipur	13000	11845	Not Met	8.8846
	2024-01-01	Coimbatore	3500	2214	Not Met	36.7429
	2024-01-01	Lucknow	13000	4896	Not Met	62.3385
	2024-02-01	Visakhapatnam	4500	3170	Not Met	29.5556
	2024-02-01	Chandigarh	7000	4957	Not Met	29.1857
	2024-02-01	Surat	9000	3567	Not Met	60.3667
	2024-02-01	Vadodara	6000	2756	Not Met	54.0667
	2024-02-01	Kochi	7500	5372	Not Met	28.3733
	2024-02-01	Indore	7000	3981	Not Met	43.1286
	2024-02-01	Jaipur	13000	12450	Not Met	4.2308
	2024-02-01	Coimbatore	3500	1993	Not Met	43.0571
	2024-02-01	Lucknow	13000	5188	Not Met	60.0923
	2024-03-01	Visakhapatnam	4500	3093	Not Met	31.2667
	2024-03-01	Chandigarh	7000	4100	Not Met	41.4286
	2024-03-01	Surat	9000	3440	Not Met	61.7778
	2024-03-01	Vadodara	6000	2522	Not Met	57.9667
	2024-03-01	Kochi	7500	6213	Not Met	17.1600
	2024-03-01	Indore	7000	3833	Not Met	45.2429
	2024-03-01	Jaipur	13000	9257	Not Met	28.7923

## Observation

From the table, Mysore is the only city to have exceeded its total trip targets during the first quarter. However, in subsequent months, it failed to meet its targets, joining other cities that consistently underperformed. Jaipur, on the other hand, narrowly missed its targets, standing out as a city with potential for improvement.

## Inference

Mysore, being a tourism-focused city, demonstrates opportunities for partnerships with hotels, travel guides, and other tourism-centric businesses to capitalize on its appeal. Jaipur's consistent near-target performance suggests that it has untapped potential and could deliver stronger results with targeted strategies. The widespread failure across cities indicates that the existing trip targets might not align with market conditions.

## Takeaway

Mysore presents an opportunity to boost trip volumes through strategic partnerships with local tourism stakeholders. Jaipur should be prioritized for additional investment and resources to leverage its potential. Finally, the team should review and adjust total trip targets to ensure they are realistic and attainable, driving more consistent success across cities.

## Aspect of passenger rating

SELECT

c.city\_name,

t.target\_avg\_passenger\_rating,

AVG(a.passenger\_rating) AS actual\_avg\_rating,

CASE

WHEN AVG(a.passenger\_rating) >= t.target\_avg\_passenger\_rating THEN 'Met or Exceeded'

ELSE 'Not Met'

END AS performance\_status,

CASE

WHEN AVG(a.passenger\_rating) >= t.target\_avg\_passenger\_rating THEN (AVG(a.passenger\_rating) - t.target\_avg\_passenger\_rating) / t.target\_avg\_passenger\_rating \* 100

ELSE (t.target\_avg\_passenger\_rating - AVG(a.passenger\_rating)) / t.target\_avg\_passenger\_rating \* 100

END AS percentage\_difference

FROM

city\_target\_passenger\_rating t

JOIN

fact\_trips a ON t.city\_id = a.city\_id

JOIN

dim\_city c ON t.city\_id = c.city\_id

GROUP BY

c.city\_name, t.target\_avg\_passenger\_rating;

	city_name	target_avg_passenger_rating	actual_avg_rating	performance_status	percentage_difference
►	Lucknow	7.25	6.4770	Not Met	10.662378386206903
	Vadodara	7.5	6.6798	Not Met	10.935738453333338
	Coimbatore	8.25	7.8993	Not Met	4.250698109090912
	Kochi	8.5	8.5344	Met or Exceeded	0.4049597058823488
	Visakhapatnam	8.5	8.4226	Not Met	0.9111253294117627
	Chandigarh	8	7.9769	Not Met	0.2887391749999968
	Surat	7	6.4089	Not Met	8.444148942857144
	Jaipur	8.25	8.5530	Met or Exceeded	3.672698193939388
	Mysore	8.5	8.7601	Met or Exceeded	3.0598786588235365
	Indore	8	7.8466	Not Met	1.9173728875000018

### Observation

Tourism-focused cities like Kochi, Jaipur, and Mysore have exceeded their passenger satisfaction targets, indicating strong performance in customer satisfaction. On the other hand, Vishakhapatnam, Chandigarh, and Indore, also in the tourism category, narrowly missed their targets but show promising potential for improvement. Meanwhile, cities such as Lucknow and Vadodara lag significantly behind, failing to meet their customer satisfaction targets by a noticeable margin.

### Inference

The strong performance in cities like Kochi, Jaipur, and Mysore highlights effective practices in ensuring customer satisfaction. Vishakhapatnam, Chandigarh, and Indore have a solid foundation but could benefit from slight enhancements to further boost satisfaction. The underperformance of Lucknow and Vadodara suggests underlying issues that require focused attention and remedial action.

### Takeaway

A detailed passenger satisfaction survey should be conducted in high-performing cities like Kochi, Jaipur, and Mysore to identify successful strategies and practices. These insights should then be applied to cities like Lucknow and Vadodara to address their gaps in customer satisfaction. This approach will help enhance overall service quality and bring underperforming cities closer to meeting their targets.

### Repeat passenger rate percentage

SELECT

month\_name,

c.city\_name,

(SUM(a.repeat\_passengers) / SUM(a.total\_passengers)) \* 100 AS repeat\_passenger\_rate

FROM

fact\_passenger\_summary a

JOIN

dim\_city c ON a.city\_id = c.city\_id

GROUP BY

month\_name, c.city\_name;

	month_name	city_name	repeat_passenger_rate
▶	2024-01-01	Chandigarh	15.5172
	2024-02-01	Chandigarh	17.2080
	2024-03-01	Chandigarh	21.2683
	2024-04-01	Chandigarh	24.0183
	2024-05-01	Chandigarh	26.1963
	2024-06-01	Chandigarh	26.2966
	2024-01-01	Coimbatore	17.7055
	2024-02-01	Coimbatore	17.3608
	2024-03-01	Coimbatore	21.7303
	2024-04-01	Coimbatore	27.8746
	2024-05-01	Coimbatore	32.6636
	2024-06-01	Coimbatore	24.6929
	2024-01-01	Indore	26.6512
	2024-02-01	Indore	27.7066
	2024-03-01	Indore	28.4633
	2024-04-01	Indore	35.5184
	2024-05-01	Indore	43.5255
	2024-06-01	Indore	35.8820
	2024-01-01	Jaipur	12.0051
	2024-02-01	Jaipur	13.3414
	2024-03-01	Jaipur	19.8768
	2024-04-01	Jaipur	22.0978
	2024-05-01	Jaipur	25.6761
	2024-06-01	Jaipur	16.9781
	2024-01-01	Kochi	14.0459
	2024-02-01	Kochi	18.7081
	2024-03-01	Kochi	21.6964
	2024-04-01	Kochi	24.1903

## Observation

Surat and Lucknow stand out as the top two cities with the highest repeat passenger rates (RPR), followed closely by Indore and Vadodara, where roughly every other customer is a repeat passenger. Mysore has the lowest repeat passenger rate at around 10-11%, followed by Jaipur, which maintains an RPR of 12-13%. Additionally, RPR rates show a steady increase from January to May, peaking in May and June for cities like Surat, Lucknow, and Indore. However, there is a slight decline in RPR from May to June. On the other hand, cities like Jaipur and Mysore experience a drop in RPR from January to March.

## Inference

The high RPR in Surat, Lucknow, and Indore suggests strong customer loyalty, likely due to business or recurring travel needs. The peak in May and June indicates seasonal travel patterns, likely for home visits during summer vacations. Mysore and Jaipur, with lower RPR, could be attracting more one-time visitors, possibly due to tourism-related factors or lack of frequent travel needs. The dip in RPR from January to March could be related to the post-holiday period, where travel demand typically slows down.

## Takeaway

To better understand the variations in repeat passenger rates, further analysis of travel patterns and seasonal weather factors is needed for cities like Jaipur and Mysore. This can help identify factors influencing low repeat passenger rates during certain months, leading to targeted strategies for increasing repeat customers, especially in tourism-driven cities. Cities like Mysore and Jaipur, with lower repeat passenger rates, could benefit from building partnerships with local hotels, tour operators, and other travel services to offer tailored packages or loyalty programs that encourage repeat usage. Additionally, conducting targeted marketing campaigns during off-peak months (e.g., post-holiday season) could help increase repeat customers during slower periods. For cities like Surat and Lucknow, which already have high repeat rates, it's essential to maintain and enhance their customer loyalty programs, ensuring a consistently high level of service and personalized experiences for their frequent travelers.